

**Access and Terminals (AT);
Second Generation Transmission Systems for Interactive
Cable Television Services - IP Cable Modems;
Part 1: General**



Reference

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

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Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Access and Terminals (AT), and is now submitted for the ETSI standards Membership Approval Procedure.

The present document is part 1 of a multi-part deliverable covering Second Generation Transmission Systems for Interactive Television Services - IP Cable modems, as identified below:

- Part 1:** "General";
- Part 2: "Radio frequency interface specification";
- Part 3: "Baseline privacy plus interface specification".

1 Scope

The present document is a listing of the parts comprising ES 202 488.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- [1] ETSI ES 202 488-2: "Access and Terminals (AT); Second Generation Transmission Systems for Broadband Cable Services - IP Cable Modems; Part 2: Radio Frequency Interface Specification".
- [2] ETSI ES 202 488-3: "Access and Terminals (AT); Second Generation Transmission Systems for Broadband Cable Services - IP Cable Modems; Part 3: Baseline Privacy Plus Interface Specification".
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3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

access node: layer two termination device that terminates the network end of a Second Generation IP Cable Modem System

NOTE: It is also called an INA or a CMTS.

cable modem: layer two termination device that terminates the customer end of a Second Generation IP Cable Modem System

IPCablecom: ETSI deliverables including an architecture and a series of specifications that enable the delivery of real time services (such as telephony) over the cable television networks using cable modems

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

BPI+	Baseline Privacy Plus Interface
CM	Cable Modem
CMTS	Cable Modem Termination System
DOCS	Data-Over-Cable System
HFC	Hybrid Fibre Coax
INA	Interactive Network Adapter
IP	Internet Protocol
MAC	Media Access Control
QoS	Quality of Service

4 Overview of the multi-part ETSI standard

4.1 Part 1: General

The present document.

4.2 Part 2: Radio frequency interface specification

ES 202 448-2 defines the radio-frequency interface specifications for high-speed second generation IP cable modem systems. The intended service will allow transparent bi-directional transfer of Internet Protocol (IP) traffic, between the cable system headend and customer locations, over an all-coaxial or Hybrid-Fibre/Coax (HFC) cable network. The transmission path over the cable system is realized at the headend by a Cable Modem Termination System (CMTS), and at each customer location by a Cable Modem (CM).

There are differences in the cable spectrum planning practices adopted for different networks in the world. Therefore two definitions for physical layer technology are included in this specification, which have equal priority and are not required to be inter-operable. One technology definition is based on the downstream multi-programme television distribution that is deployed using 6 MHz channelling, and supports upstream transmission in the region 5 MHz to 42 MHz. The other technology definition is based on the corresponding downstream multi-programme television distribution that is deployed using 8 MHz channelling, and supports upstream transmission in the region 5 MHz to 65 MHz. It is the network operator's choice of which technology definition to deploy.

4.3 Part 3: Baseline privacy plus interface specification

ES 202 488-3, the Baseline Privacy Plus Interface (BPI+), describes MAC layer security services for Second Generation IP Cable Modem Systems CMTS-CM communications. BPI+ security goals are twofold:

- provide cable modem users with data privacy across the cable network, and
- provide MSOs with service protection; i.e. prevent unauthorized users from gaining access to the network's RF MAC services.

BPI+ provides a level of data privacy across the shared medium cable network equal to or better than that provided by dedicated line network access services (analogue modems or digital subscriber lines).

The protected radio frequency MAC data communications services fall into three categories:

- best-effort, high-speed, IP data services;
- QoS (e.g. constant bit rate) data services; and
- IP multicast group services.

Annex A (informative): Bibliography

- ETSI ES 201 488-1: "Access and Terminals (AT); Data Over Cable Systems; Part 1: General".
- ETSI ES 201 488-2: "Access and Terminals (AT); Data Over Cable Systems; Part2: Radio Frequency Interface Specification".
- ETSI ES 201 488-3: "Access and Terminals (AT); Data Over Cable Systems; Part 3: baseline Privacy Plus Interface Specification".
- ITU-T Recommendation J.122 (2002): "Second generation transmission systems for interactive cable television services - IP cable modems".

History

Document history		
V1.1.1	June 2003	Membership Approval Procedure MV 20030822: 2003-06-24 to 2003-08-22